**Remarks/Arguments:**

Claims 6-14, 28, 52 and 54-71 are pending in the above-identified application. By the present amendment, claims 6-14, 28 and 52 are amended; claims 54-71 are newly added; and claims 15-23, 29, 30 and 53 are cancelled. Claims 1-5, 24-27 and 31-51 have been previously cancelled.

Supplemental Preliminary Amendment Filed September 10, 2003

The Office Action Summary provided in the Office Action mailed on March 8, 2007, incorrectly indicates that claims 1-51 are pending in the application. In a Supplemental Preliminary Amendment filed on September 10, 2003, claims 1-5, 24-27 and 31-51 were cancelled and new claims 52 and 53 were added. Accordingly, Applicant respectfully notes that the Office Action did not examine the most recent claim set. Accordingly, the rejections of claims 31-32, 34-40, 42-48 and 50-51 under 35 USC § 112 (see Office Action, page 2, bottom) and claims 1-5, 24-27, and 31-51 under 35 USC § 102(b) (see Office Action, pages 4 13) are moot as these claims were previously cancelled in the Supplemental Preliminary Amendment. Applicants request that these rejections be withdrawn. Favorable consideration is respectfully requested.

Objection To The Specification

The abstract stands objected to as indicated on page 2 of the Office Action. In particular, the Office Action emphasizes that the "form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided." By the present Amendment, Applicant submits an amended abstract. Favorable reconsideration is respectfully requested.

Objection To Claim 29

The Office Action objects to claim 29. By the present Amendment, claim 29 is cancelled. Accordingly, Applicant respectfully contends that the objection is moot and requests that it be withdrawn.

storing means ~~of~~ configured for storing detected said vital signs;

processing means ~~of~~ configured for processing said vital signs stored in said storing means according to a predetermined program and/or data; and

displaying means ~~of~~ configured for displaying said vital signs stored in said storing means and/or output data of said processing means~~,~~;

wherein said first communicating means is configured for communicating with said vital signs processing means, and

wherein said buffering means and said storing means comprise a removable medium which can be detached, and said removable medium is transferable between said vital signs detecting means and said vital signs processing means to transfer data stored in said removable medium.

7.    (Currently Amended)  The vital signs processing apparatus according to ~~Claim 6~~claim 6, wherein said vital signs processing means further comprises third communicating means ~~of~~ configured for communicating with an external server.

8.     (Currently Amended)  The vital signs processing apparatus according to ~~Claim 6~~claim 54 or 55, wherein:

said buffering means and said storing means comprise a removable medium which can be detached; and

said removable medium is ~~transferred~~ transferable between said vital signs detecting means and said vital signs processing means, whereby the data stored in said removable medium is transferred.

9.      (Currently Amended)   The vital signs processing apparatus according to any of ~~Claims 6-8~~claims 6, 54 or 55, wherein:

said vital signs detecting means ~~is composed of~~comprises a pulse wave sensor for measuring ~~the~~a pulse wave of ~~a user~~the user; and

said processing means comprises:

frequency processing means of performing FFT (fast Fourier transformation) processing onto ~~the frequency of~~said pulse wave to generate an output;

heart rate measuring means of measuring a heart rate of the user from the output of said frequency processing means; and

calorie consumption calculating means of calculating calorie consumption of the user from said heart rate.

10.     (Currently Amended)   The vital signs processing apparatus according to ~~Claim 9~~claim 9, wherein:

said vital signs processing means further comprises FFT processing means of performing FFT processing onto said heart rate;

according to ~~the~~a result of said FFT processing, it is determined whether said user is exercising or not; and

when it is determined that said user is not exercising, and when said heart rate exceeds a predetermined set value, said calorie consumption calculating means does not use said measured heart rate, but calculates calorie consumption according to said user's resting heart rate stored previously.

11. (Currently Amended) The vital signs processing apparatus according to claim 9, further comprising inputting means ~~of permitting~~ configured to permit a user to input: personal data including one's name, age, and sex; the health control indices ~~including~~ as daily, weekly, monthly, and final target values for calorie consumption; and ~~exercise indices including~~ upper and lower limits for heart rate at exercise, and exercise time.

12. (Currently Amended) The vital signs processing apparatus according to ~~Claim 11~~ claim 11, wherein said health control indices and said exercise indices are displayed on said displaying means.

13. (Currently Amended) The vital signs processing apparatus according to ~~Claim 9~~ claim 9, further ~~comprising~~ comprising:

inputting means configured to accept inputted upper and lower limits of a safe heart rate; and

notifying means ~~of warning~~ configured to warn said measured user when said heart rate falls outside ~~the~~ a range between said upper and lower limits for the safe heart rate ~~having been input through said inputting means~~.

14. (Currently Amended) The vital signs processing apparatus according to ~~Claim 11~~ claim 11, wherein:

said processing means performs: ~~the~~ accumulation of said calorie consumption to provide an accumulated value of calorie consumption; ~~the~~ calculation of ~~the~~ a difference of the accumulated calorie consumption from ~~said~~ a target value; ~~the~~ calculation of ~~the~~ a degree of achievement to said target value; and ~~the~~ calculation of ~~the~~ an expected time of achieving said target value at ~~the~~ a current pace of calorie consumption; and then stores these data in a region different from that of said vital signs data, within said storing means; and

said displaying means displays: ~~the~~ a time series of ~~the~~ a change in said measured heart rate and said calorie consumption; said accumulated value of calorie consumption; and

said expected time of achieving said target value.

15. - 27.    (Cancelled)

28.    (Currently Amended)   A computer readable medium including a program ~~of~~ for operating a computer as ~~all or part of~~ said processing means of said vital signs processing means of said vital signs processing apparatus according to ~~Claim 6~~any of claims 6, 54 or 55.

29. - 51.  (Cancelled)

52.    (Currently Amended)   The vital signs processing apparatus of ~~claim 7~~claim 55, wherein the server ~~includes~~is further configured to:

determine whether the detected vital signs, received from the vital signs processing means via the third communicating means, are within a predetermined range for the user;

change the health control program; and

transfer the changed program to the vital signs processing means via the third communicating means, when the detected vital signs are determined to be outside of the predetermined range for the user~~ means determining whether the detected vital signs, received from the vital signs processing means via the third communicating means, are within a predetermined range for a user, and~~

~~changing the predetermined program and/or data, and transferring the changed program and/or data to the vital signs processing means via the third communicating~~

~~means, when the detected vital signs are determine to be outside of the predetermined~~

~~range for the user.~~

53.    (Cancelled)

54.    (New) A vital signs processing apparatus comprising:

vital signs detecting means configured to detect vital signs of a user, the vital sign detecting means comprising:

buffering means configured for temporarily storing said detected vital signs, and

first communicating means; and

vital signs processing means configured to process, store, and display said vital signs detected by said vital signs detecting means, the vital signs processing means comprising:

second communicating means configured for communicating with said vital signs detecting means;

storing means configured for storing said detected vital signs;

processing means configured for processing said vital signs stored in said storing means according to a predetermined program and/or data;

third communicating means configured for communicating with an external server; and

displaying means configured for displaying said vital signs stored in said storing means and/or output data of said processing means,

wherein said first communicating means is configured for communicating with said vital signs processing means, and

wherein the external server includes:

means configured for determining whether the detected vital signs, received from the vital signs processing means via the third communicating means, are within a predetermined range for the user,

means configured for changing the predetermined program and/or data and transferring the changed program and/or data to the vital signs processing means via the third communicating means, when the detected vital signs are determined to be outside of the predetermined range for the user.

55.    (New) A vital signs processing apparatus comprising:

vital signs detecting means configured to detect vital signs of a user, the vital sign detecting means comprising:

buffering means configured for temporarily storing said detected vital signs, and

first communicating means; and

vital signs processing means configured to process, store, and display said vital signs detected by said vital signs detecting means, the vital signs processing means comprising:

second communicating means configured for communicating with said vital signs detecting means;

storing means configured for storing said detected vital signs;

processing means configured for processing said vital signs stored in said storing means according to a predetermined program and/or data;

third communicating means configured for communicating with an external server; and

displaying means configured for displaying said vital signs stored in said storing means and/or output data of said processing means,

wherein said first communicating means is configured for communicating with said vital signs processing means, and

wherein the server is configured to:

generate a health control program comprising exercise indices, an exercise menu, and health control indices, the exercise indices directing an exercise routine of the user, and

transmit the health control program to the vital signs processing means.

56.     (New)   The vital signs processing apparatus according to claim 55, wherein the server includes a user chart comprising stored vital signs of the user, the stored vital signs comprising height, weight, body fat percentage, and temperature of the user, the server being further configured to generate the health control program using the user chart.

57.     (New)   The vital signs processing apparatus according to claim 56, wherein the health control indices specify target values for a health of the user.

58.     (New)   The vital signs processing apparatus of claim 56, wherein:

the vital signs detecting means is further configured to receive further vital signs from the user exercising according to the predetermined program and/or data;

the vital signs processing means is further configured to transmit the further vital signs to the server via the third communication means; and

the server is further configured to modify the health control program according to the further vital signs received from the vital signs processing apparatus.

59.     (New)   The vital signs processing apparatus of claim 56, wherein the vital signs processing means is further configured to transmit warning information for requesting attention to said server via the third communication means when the detected vital signs fall outside a range of values set in the health control program.

60.     (New)   A method of controlling a health of a user of a vital signs processing apparatus comprising a vital signs detecting means configured to detect vital signs of the user and a vital sign processing means configured to process, store, and display the vital signs detected by the vital signs detecting means, the method comprising:

generating a health control program in a server according to a user chart containing vital signs including height, weight, body fat percentage, and temperature of said user, the health control program including all or part of exercise indices, an exercise menu, and health control indices of the user of the vital signs processing apparatus, the server being external to the vital signs processing apparatus;

transmitting the health control program to the vital signs processing apparatus;

receiving the health control program in the vital signs processing apparatus;

measuring vital signs of the user exercising according to instructions in the health control program,

wherein the health control program directs an exercise routine of the user.

61.    (New) The method according to claim 60 further comprising:

transmitting the measured vital signs to the server;

modifying the health control program depending on the transmitted vital signs; and

transmitting the modified health control program to the vital signs processing apparatus.

62.    (New) The method according to claim 60 further comprising:

determining, in the vital signs processing apparatus, whether the measured vital signs fall outside a range of values set in the health control program; and

transmitting warning information from the vital signs processing apparatus to the server requesting attention from the server.

63.    (New) The method according to claim 62 further comprising:

altering the exercise indices and/or the exercise menu in the health control program according to the warning information to provide a modified health control program; and

transmitting the altered exercise indices and/or exercise menu to the vital signs processing apparatus to provide the vital signs processing apparatus with the modified health control program.

64.    (New) The method according to claim 61 further comprising:

measuring further vital signs of the user exercising according to instructions in the modified health control program.

65.    (New) The method according to claim 60 further comprising:

providing prompt information for requesting renewal of measured vital signs to the

user;

measuring new vital signs of the user; and

transmitting the new measured vital signs to the server.

66.     (New)  The method according to claim 65, wherein said prompt information is output

when the measured vital signs are not renewed for a predetermined time or longer.

67.     (New)  The method according to claim 65, wherein the prompt information includes a

method of operation of the vital signs processing apparatus for the user to renew the

measured vital signs.

68.     (New)  The health control method according to claim 65, wherein the prompt

information includes a method of operation of the server for the user of the vital sign

processing apparatus.

69.     (New)  The health control method according to claim 60 wherein:

the server further comprises a user ID (identifier) table for storing user

identifications for corresponding a user chart of each user to that user uniquely; and

each user identification is transmitted together with the health control program to

the vital signs processing apparatus.

70.     (New)  A computer readable tangible medium including a program for operating a

central processing unit of a computer to perform all of the steps of generating and

transmitting in the method of claim 60.

71.     (New)  A data structure on a computer readable tangible medium including

instructions for operating a central processing unit of a computer to perform all of the

second steps of generating and transmitting in the method of claim 60.

**Amendments to the Abstract:**

The Abstract has been amended.  A revised Abstract is attached.

ABSTRACT

A vital signs ~~detection system has~~ processing apparatus having a vital signs detector and a vital signs processor.  The vital signs detector is configured to detect vital signs of a user and comprises a first communication bus for communicating the detected vital signs to the vital signs processor.  The vital signs processor is configured to process, store, and display the vital signs detected by the vital signs detector.  The vital signs processor comprises a communication link to an external server and is configured to communicate the detected vital signs to the external server via the communication link.  The external server is configured to determine whether the detected vital signs are within a predetermined range for the user and to generate and/or change a predetermined exercise program.  The external server transfers the exercise program to the vital signs processor when the detected vital signs are outside an acceptable range for the user.

~~a terminal capable of being connected to detecting means of detecting vital signs;~~

~~a program server of storing a program and/or data to operate the detecting means; and~~

~~an information server of communicating with the terminal; wherein:~~

~~when an operation switch of the detecting means is turned ON, the terminal transmits information including the type of the detecting means to the program server;~~

~~on receiving the information, the program server transmits a predetermined program and/or data corresponding to the information to the terminal according to the information;~~

~~the detecting means operates according to the predetermined program and/or data received by the terminal, and thereby detects vital signs; and~~

~~the terminal transmits the vital signs detected by the detecting means to the information server.~~

Rejections Of Certain Claims Under 35 USC §112

Claims 31-32, 34-40, 42-48, and 50-51 stand rejected under 35 USC § 112, second paragraph. As discussed above, Applicant respectfully notes that claims 31-51 were cancelled in the Supplemental Preliminary Amendment filed with the USPTO on September 10, 2003. Accordingly, Applicant respectfully contends that these rejections are moot and requests that they be withdrawn.

Rejections To The Claims Under 35 USC § 101

Claims 29 and 30 stand rejected under 35 USC § 101. By the present Amendment, claims 29 and 30 are cancelled. Accordingly, Applicant respectfully contends that these rejections are moot and requests that they be withdrawn.

Rejections Under 35 USC § 102(b)

Pending claims 6-14 and 28 stand rejected under 35 USC § 102(b) for allegedly being anticipated by US Patent No. 6,030,342 to Amano et al. ("Amano"). Although not conceding the rejections, Applicant has amended claims 6 to expedite prosecution. It is respectfully submitted that amended claim 6 is patentable over Amano for at least the reasons set forth below.

Amended claim 6 includes features which are neither disclosed nor suggested by Amano, namely:

> wherein said buffering means and said storing means comprise
> a removable medium which can be detached, and said
> removable medium is transferable between said vital signs
> detecting means and said vital signs processing means to
> transfer data stored in said removable medium.

This feature is found in the originally filed application at page 48, line 18, through page 50, line 1. No new matter has been added.

The above-quoted portion of claim 6 is similar to the portion recited in claim 8 pending during the previous Office Action. The previous Office Action rejected claim 8 for

being disclosed by Amano in Figs. 25-27 and in the discussion at Col. 12, lines 7-65.
Applicant respectfully traverses this assertion.

Fig. 1 of Amano details a functional structure of a calorie expenditure measuring
device.  (See Amano, Col. 6, lines 53-56.)  The portion of Amano (Col. 12, lines 7-65) cited
by the Office Action as allegedly disclosing the above-quoted features discloses the
"electrical structure for realizing the functional structure shown in Fig. 1."  (See Amano, Col.
12, lines 18-19.)  In particular, this portion of Amano describes this "electric structure" as
comprising a CPU 201, a RAM 203, a switch interface 204, a display 205, a watch circuit
208, and a body motion sensor interface 209.  Amano does not disclose that any of these
components are removable from the functional structure illustrated in Fig. 1.

Figs. 25-27 illustrate various views of the calorie expenditure measuring device.  Fig.
25 illustrates that this device may employ one pressure sensor and one pulse sensor.  (See
Col. 29, lines 22-24.)  Fig. 26 illustrates placing the device on a person's arm so that the
sensors are positioned near the radial artery of the person.  (See Col. 29, lines 29-37.)  Fig.
27 illustrates using a pulse waveform detector instead of a pressure sensor in the calorie
expenditure measuring device.  (See Col. 29, lines 50-63.)  None of these above-quoted
portions of Amano disclose a "buffering means and [a] storing means [that] comprise a
removable medium which can be detached" or that "said removable medium is transferable
between said vital signs detecting means and said vital signs processing means," as recited
in amended claim 6.  In fact, these figures illustrate that the calorie expenditure measuring
device may be embodied as a watch-like device that appears to have no removable parts.
Accordingly, Applicant respectfully contends that the above-quoted features are not
disclosed by Amano as argued on page 6 of the Office Action.

In view of the foregoing, Applicant respectfully contends that claim 6 is patentable
over Amano for at least the reasons discussed above and request that the rejection of the
claim be withdrawn.

New Claim 54

By the present amendment, new claim 54 is submitted for consideration.  New claim
54 recites features similar to those recited in the version of claim 7 presented in the

Supplemental Preliminary Amendment. In particular, new claim 54 recites features relating to a "third communication means configured for communicating with an external server" and limitations on the recited "external server." With regard to limitations on the recited "external server," claim 54 recites:

> wherein . . . the external server includes:
>
> . . .
>
> means configured for changing the predetermined program
> and/or data and transferring the changed program and/or data
> to the vital signs processing means via the third communicating
> means, when the detected vital signs are determined to be
> outside of the predetermined range for the user.

In the rejection of claim 7, the Office Action, at page 6, lines 1-3, contends that Amano, at Col. 21, lines 57-68, and Col. 22, lines 1-26, discloses features relating to a "third communicating means" that is used to communicate with an external server. (See Office Action, page 6, lines 1-3.) Applicants respectfully contend that the portions of Amano do not disclose all of the limitations of new claim 54 quoted above. Favorable consideration of claim 54 is therefore respectfully requested.

The portion of Amano cited in the Office Action at page 6, lines 1-3, describes an operation in which a calorie expenditure measuring device communicates with the external device illustrated in Fig. 9. (See Amano, Col. 21, lines 52-56.) Upon the activation of switch Sw2 in the calorie expenditure measuring device, the calorie expenditure measuring device transmits calorie expenditure data for a plurality of time intervals, the summed value of calorie expenditure during a time interval, or a rate of change in the calorie expenditure for a time series. (See Amano, Col. 22, lines 3-12.) These data are transmitted to external device 600. (See Amano, Col. 22, lines 3-6.)

Continuing, Amano describes that device 600 communicates target values for calorie expenditures to the calorie expenditure measuring device. (See Amano, Col. 22, lines 35-55.) This portion of Amano does not disclose "changing [a] predetermined program and/or data and transferring the changed program and/or data . . . when. . . detected vital signs are determined to be outside of [a] predetermined range for the user."

In view of the foregoing, Applicant respectfully contends that Amano, at Col. 21, lines 57-68, and Col. 22, lines 1-26, does not disclose the above-quoted portion of new claim 54. Favorable consideration is respectfully requested.

New Claim 55

By the present Amendment, Applicant submits a new claim 55. New claim 55 recites an "external server" that is configured to "generate a health control program comprising exercise indices, an exercise menu, and health control indices, the exercise indices directing an exercise routine of the user" and to "transmit the health control program to the vital signs processing means." These features are similar to those recited in claim 17, which is rejected on page 9 of the Office Action.

In the rejection of claim 17, the Office Action cites to Col. 1, line 20-62, and cols. 7 and 8 of Amano for allegedly disclosing these features. Applicant respectfully notes that Col. 1 of Amano discloses prior-art devices and methods for measuring calorie expenditure (See Amano, Col. 1, lines 20-62.) Additionally, Cols. 7 and 8 of Amano discuss various components of a calorie expenditure measuring device. Accordingly, Applicant respectfully contends that the portions of Amano cited in the Office Action with reference to claim 17 do not disclose the above-quoted portions of new claim 55.

New Claims 60-71

New claim 60 includes features that are similar to claim 55. Accordingly, for at least the same reasons as discussed above for claim 55, Applicant respectfully contends that claim 60, and claims 61-71 which depend therefrom, are patentable over Amano.

Rejections of claims 1-5, 24-27 and 31-51

Page 4 of the Office Action rejects claims 5 and 27 under 35 USC § 102(b) for allegedly being anticipated by Amano. Page 13 of the Office Action rejects claims 1-4, 24-26 and 31-51 for allegedly being anticipated by U.S. Patent No. 6,221,012 to Maschke et al. Applicant notes that all of these claims were cancelled in the Supplemental Preliminary

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Amendment Dated:        June 8, 2007
Reply to Office Action of:   March 8, 2007

Amendment discussed above.  Accordingly, Applicant respectfully requests that these rejections be withdrawn.
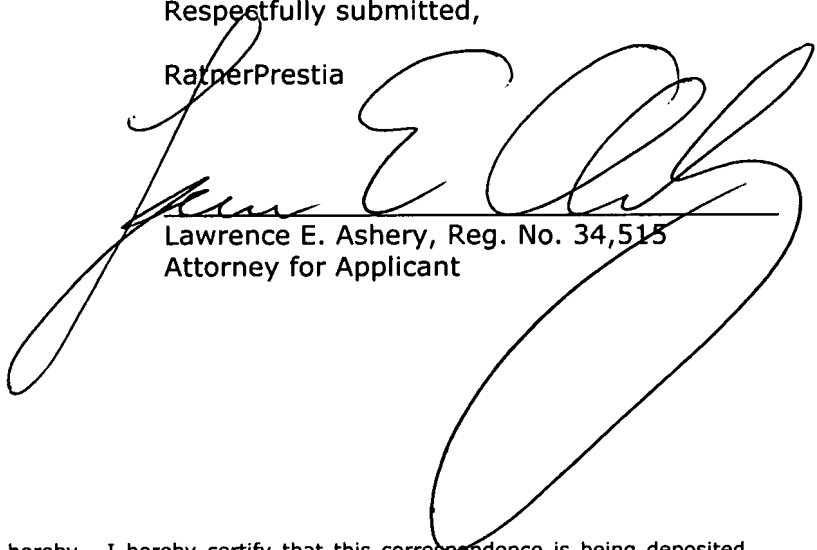
Remaining Claims

Claims 7-14, 28, 52 and 56-59 depend from one or more of claims 6, 54 and 55 and therefore include all of the limitations of one or more of claims 6, 54 and 55.  Accordingly, for at least the same reasons as discussed above for claims 6, 54 and 55, Applicant respectfully contends that these claims are patentable over Amano and requests the applicable rejections be withdrawn.

Conclusion

In view of the foregoing remarks and amendments, Applicant respectfully contends that claims 6-14, 28-52 and 54-71 are in condition for allowance and respectfully request that the rejections of these claims be withdrawn.

Respectfully submitted,

RatnerPrestia

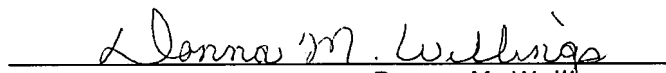Lawrence E. Ashery, Reg. No. 34,515
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The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

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